

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

October 18, 2005

TO: Internal File

THRU: Pam Grubaugh-Littig, Permit Supervisor

FROM: Wayne Western, Team Lead

RE: Division Order 4-6-00, West Ridge Resource Inc., West Ridge Mine Name, Permit C/007/0041, Task ID #2233

SUMMARY:

The Division issued a Division Order to West Ridge Mine to submit as-built drawings and a detailed back filling and grading plan. The construction of the mine site varied substantially from the approved construction design. After several submittals, the Permittee modified the reclamation plan for the portal highwall from a maximum slope of 40° to 33.6°. The toe of the highwall will determine the final location of the channel.

This memo provides the review of the engineering related information pertaining to reclamation that the Permittee submitted on April 29, 2005.

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TECHNICAL ANALYSIS:

RECLAMATION PLAN

APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR Sec. 784.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-412, -301-413, -301-512, -301-531, -301-533, -301-553, -301-536, -301-542, -301-731, -301-732, -301-733, -301-764.

Analysis:

The Permittee met the minimum requirements for achieving approximate original contour restoration. The definitions of Approximate Original Contour (AOC) are contained in the Surface Mining Control and Reclamation Act (SMCRA) and the Utah coal rules. The objectives of post-mining backfilling and grading is to return the site to a configuration resembling the topography of the land prior to mining, and to blend the site into the drainage pattern of the surrounding terrain. At the same time, the Permittee must meet reclamation performance standards including: controlling erosion; establishing mass stability; and establishing permanent, diverse, and effective vegetative cover.

Final Surface Configuration

The Permittee met the minimum requirements for restoring the surface configuration. The Permittee will reclaim the site so that postmining topography closely resembles the pre-mining topography with respect to slope grade and length.

The Permittee used an experimental practice that involved placing filter fabric in and around the mainstream channel. During construction the vegetation was removed, the filter fabric installed and the backfilled placed. During reclamation, the backfill will be removed and the filter fabric peeled off. The pre-mining topography will be revealed. See Map 5-9 for the experimental practice area.

Areas outside the experimental practice will be restored with slopes that are similar in length and grade to those in the surrounding area.

The Permittee modified the experimental practice in order to accomplish complete highwall elimination. Due to burnt coal near the outcrop the Permittee had to construct larger highwalls than anticipated. The Permittee could not restore the site to the original topography and meet the 1.3 safety factor requirement. In order to meet all of the reclamation requirements,

the Permittee had to abandon reclaiming the area between cross sections 23+00 and 28+00 in the main channel.

The modified reclamation plan for the area between cross sections 23+00 and 28+00 in the main channel by moving the restored channel approximately 40 ft to the northwest. The maps and cross sections in Appendix xxx show that the final surface configuration for the highwall area complies with the AOC requirements.

All Highwalls to be Eliminated

The Permittee will eliminate all highwalls. There are four portals at the West Ridge Mine, which are located between cross sections 23+00 and 26+00 in the main drainage area (see Map 5-5). The highwall elimination plan is shown on Plates in Appendix 5-9, see Plate 1 for a topographic map of the highwall area and Plate 2A through Plate 2D for cross sections.

Hydrology

The Division considers that the hydrology requirements for AOC are met if all of the hydrology requirements have been satisfied.

Postmining Land Use

The Division considers that they postmining land use requirements for AOC have been met if all of the postmining land use requirements have been met.

Book Keeping Error

The Permittee has submitted two amendments that contain Appendix 5-9. Each appendix if different, one deals with mining panel #7 and the other with highwall elimination. The Permittee will have to change the appendix number and all associated change in one of the appendixes.

Findings:

The Permittee met the minimum approximate original contour restoration requirements as stated in the R645 – Rules.

The Permittee did not meet the minimum requirements for providing the information in a clear and concise manor. Before approval, the Permittee must provide the following in accordance with:

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R645-301-121.200, The Permittee must renumber the Appendix 9 that contains the alternative highwall reclamation plan. The Permittee numbered the appendix that contains information about mining longwall panel #7 as also Appendix 9. In addition to renumber the appendix all maps and cross section with Appendix 9 notation will have to be reprinted with the correct appendix number.

BACKFILLING AND GRADING

Regulatory Reference: 30 CFR Sec. 785.15, 817.102, 817.107; R645-301-234, -301-537, -301-552, -301-553, -302-230, -302-231, -302-232, -302-233.

Analysis:

General

The Permittee met the minimum requirements for backfilling and grading. The Permittee met those requirements by:

- Achieve AOC. All AOC requirements were addressed in the AOC section of the TA.
- Eliminate All Highwalls. Highwall elimination was addressed in the AOC section of the TA.
- Eliminate all spoil piles. No spoil is on site.
- Eliminate all depressions. All depressions except for pocked used to control erosion and enhance vegetation will be removed at reclamation. See Map 5-9 and Plate 1 in Appendix xxx.
- Achieve a postmining slope that does not exceed 1.3 safety factor and prevents slides. The slope stability analysis for general mine site is in Appendix 5-4. The slope stability analysis for the highwall areas is found in Appendix xxx. All reclaimed slopes will meet or exceed the 1.3 safety factor requirement.
- Minimize Erosion and Water Pollution. During reclamation, the Permittee will pock areas where topsoil will be applied. Pocks are an effective method to reduce erosion because the limit surface flow and enhance vegetation. The Division considers that water pollution is minimized if all of the hydrology regulations have been addressed.
- Support the Approved Postmining Land Use. The Division considers that the postmining land use requirements have been met if all of the postmining land use requirements have been met. See the postmining land use section of the TA for details.
- Cover all coal seams with 4 ft of material. The backfilling and grading plan shown in Appendix xxx contains the backfilling and grading plans. Plate 2A through 2D show that the coal seams will be properly backfilled.

Previously Mined Areas

There are no previously mined areas (pre-SMCRA) associated with the West Ridge Mine.

Findings:

The Permittee met the minimum backfilling and grading requirements of the R645-Rules.

MINE OPENINGS

Regulatory Reference: 30 CFR Sec. 817.13, 817.14, 817.15; R645-301-513, -301-529, -301-551, -301-631, -301-748, -301-765, -301-748.

Analysis:

The Permittee met the minimum requirements for the regulations that apply to mine openings. Upon cessation of mining, the Permittee will seal and backfill all mine openings.

Findings:

The Permittee met the minimum requirements for handling mine opens during reclamation.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

Analysis:

Reclamation Backfilling And Grading Maps

The Permittee met the minimum requirements for providing backfilling and grading maps. The maps and cross sections in Appendix 5-9 are adequate to show the alternative highwall elimination plan.

Final Surface Configuration Maps

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The Permittee met the minimum requirements for providing final surface configuration maps. The maps and cross sections in Appendix 5-9 show the final surface configuration for alternative highwall reclamation plan.

Certification Requirements.

The Permittee met the minimum requirements for map certification.

Findings:

The Permittee met the minimum requirements for the Maps, Plans and Cross Sections of Reclamation Operations as stated in the R645 – Rules.

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

Analysis:

Determination of Bond Amount

The Permittee met the minimum requirements for providing enough information for the Division to determine the bond amount. The current bond is adequate to insure reclamation in the event of bond forfeiture.

Terms and Conditions for Liability Insurance

Findings:

The Permittee met the minimum requirements for the bonding and insurance requirements section of the R645 – Rules.

RECOMMENDATIONS: